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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/660,356

09/11/2003

Benyamin Harzanu

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2101 7590 06/01/2005

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EXAMINER

NGUYEN, JIMMY

ART UNIT

PAPER NUMBER

2829

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/660,356

Applicant(s)

HARZANU ET AL

Examiner

Jimmy Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 83 - 107 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 83 - 107 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### **Response to Argument**

The amendment filed 3/17/05 has been carefully considered with the following effect;

The examiner has found a new reference, therefore the new ground of rejection is hereby provided.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 83 – 107 are rejected under 35 U.S.C. 102(b) as being anticipated by Soiferman (US 5,517,110)

**As to claims 83, 96**, Soiferman discloses (fig 4) apparatus and method for electrically testing electrical circuits comprising:

at least one array of non-contact stimulator electrodes (42a, 42b) including a multiplicity of individually controlled stimulator electrodes (42a, 42b) arranged to be linearly disposed adjacent a first side of an electrical circuit (BUT, 46) to be tested; a signal generator (10, fig 1) coupled to said at least one array arranged to supply an electrical stimulation signal (11, fig 1) to each of the stimulator electrodes; and

at least two non-contact sensor electrodes (31, fig 3, claim 3) , each sensor electrode (31) having dimensions sufficiently large to overlay part of a conductor on said electrical circuit to be tested (46).

**As to claims 84, 90, 100 – 102,** Soiferman discloses (figs 3, 4) apparatus as claimed in claim 83, wherein said at least one of said two non-contact sensor electrodes (31, claim 3) is arranged to lie on a second side ( 46) of said electrical circuit to be tested, opposite to said first side (bottom side).

**As to claims 85, 97,** Soiferman discloses (figs 3, 4) apparatus as claimed in claim 83, wherein said sensor electrodes (31, claim 3) are operative to correlate a signal to a particular non-contact stimulator electrode (42A, 42B) to provide spatial information.

**As to claims 86, 98,** Soiferman discloses (figs 3, 4) apparatus as claimed in claim 83, wherein at least some of said electrical stimulation signals (42A, 42B) are at different frequencies.

**As to claims 87, 99,** Soiferman discloses (figs 3, 4) apparatus as claimed in claim 83, the electrical stimulation signals are multiplexed.

**As to claims 88, 89,** Soiferman discloses (figs 3, 4) apparatus as claimed in claim apparatus as claimed in claim 83, wherein said at least two non-contact sensor electrodes (31, claim 3) are arranged to lie adjacent said at least one array of non-contact stimulator electrodes (42a, 42b).

**As to claims 89, 103,** Soiferman discloses (fig 1) apparatus as claimed in claim 83, further comprising:

a separating detector (13) arranged to receive an output from each of said non-contact sensor electrodes (11) and being operative to correlate a signal to a particular non-contact sensor electrode;

a signal analyzer (16) operative to receive said outputs and to analyze the outputs;

a comparator (16) operative to compare said outputs to an expected signal; and

a report generator (16) at least reporting the presence of defects in said electrical circuit to be tested.

**As to claims 92, 104,** Soiferman discloses (fig 1) apparatus as claimed in claim 91, wherein said defects included defects selected from a group of defects

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including: faulty conductor continuity, shorts between, conductors, and breaks in conductors (manufacturing defects, see the abstract).

**As to claims 93, 105**, Soiferman discloses (fig 1) apparatus oes claimed in claim 83, wherein said non- contact stimulator electrodes are configured to generate localized electromagnetic fields (column 3 lines 60 – 67, column 4 line 1 – 9) each stimulating different conductors on said electrical circuit to be tested.

**As to claims 94, 106**, Soiferman discloses (figs 3, 4) non-contact stimulator electrodes (42A, 42B) are arranged to be scanned over electrical circuit to be tested (46).

**As to claims 95, 107**, Soiferman discloses (figs 3, 4) non-contact sensor electrodes (31, claim 3) are at least as large as electrical circuit to be tested (46).

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy Nguyen whose telephone number is 571-272-1965. The examiner can normally be reached on M-F from 9 to 5.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ramtez Nestor, can be reached on 571-272-2034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jimmy Nguyen

5/23/2005

  
VINH NGUYEN  
PRIMARY EXAMINER  
A.U. 2829  
05/27/05